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Juliana Parente

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09/11/2006

RYNDAK & SURI LLP  
200 W MADISON STREET  
SUITE 2100  
CHICAGO, IL 60602

EXAMINER

PRATT, HELEN F

ART UNIT

PAPER NUMBER

1761

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## Office Action Summary

Application No.

10/727,128

Applicant(s)

PARENTE ET AL.

Examiner

Helen F. Pratt

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |



## **DETAILED ACTION**

### ***Claim Objections***

Claim 2 is objected to because of the following informalities: it is not known what the phrase "goinic acid" refers to. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11-13 are indefinite in the use of the phrase "refraining from supplying citric acid into the flow of juice". It is not clear whether citric acid can be added or not.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18, 20-24, 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al. (5,474,793).

Meyer et al. disclose a process for making a calcium supplemented not-from concentrate (NFC) fruit juice by adding calcium hydroxide to circulating acidified NFC



Art Unit: 1761

juice stream, which contains citric and malic acids (abstract, col. 10, lines 21-34, col. 6, lines 40-45). Claims 1-5 differ from the reference in the steps of first supplying the calcium into the juice using an in-line mixer along the flow of the juice, and then supplying acid downstream using a mixer. However, no patentable distinction is seen in merely reversing the process steps absent a showing of unexpected results in adding the calcium to the juice stream first since the same calcium compounds would have been made whether adding acid to calcium or calcium to acid. Also, nothing new is seen in adding the acid using a mixer, since mixers are also used upstream. Therefore, it would have been obvious to reverse the steps of the process since the same product is made.

Phosphoric acid is disclosed in col. 5, lines 45-50 as in claim 6.

Claims 7 and 8 further require various combinations of acids. However, the reference discloses that various mixtures of acids and types of calcium can be added (col. 5, lines 45-50, col. 10, lines 20-30).

Claim 9 requires that the calcium is added and acid at about the same time, but at different locations along the flow of juice. Certainly, this is occurring in the reference as disclosed above.

Claim 10 further requires adding the acid source within 5 minutes of adding calcium. As the patent shows the reverse of adding calcium to an acidified juice stream, nothing new is seen in adding acid within a particular length of time to a calcium-containing stream since the same chemical reaction will occur. Therefore, it would have



Art Unit: 1761

been obvious to add the chemicals to the juice stream within certain time frames in order to not degrade the product.

Claims 11-13 further require "refraining from supplying citric acid into the flow of juice". However, as certainly orange juice already contains citric, and the addition of other acids such as malic make well known soluble forms of calcium, it would have been obvious to add other acids to enhance the solubility of calcium.

Claim 14 further requires that the juice has from .02 to .25% calcium. Meyer et al disclose the addition of 0.05 to .3% by weight, and from 0.1 to .26% by weight (col. 6, lines 58-65, col. 8, lines 25-31, lines 60-65).

Claim 15 requires from 0.06 to about 0.8 5 acid in the composition. Meyers discloses the addition of 0.37 of acid, which is within the claimed range (col.. 8, lines 25-31).

Claim 16 further requires a flow rate of from 150 to 400 gallons per minute of juice. However, the reference discloses that controlling the conditions such as flow rate, acidulants and powder additions are within the skill of one in the art. Therefore, it would have been obvious to control the flow rate as claimed.

Claims 17 and 18 require supplying the calcium and acid in particular ratios. However, nothing new is seen in determining how much acid to how much calcium is needed to make a specific product, as applicants are not inventing new calcium compounds. Therefore, it would have been obvious to vary the amounts of calcium to acid in order to make known products.



Claims 20-24 further require a NFC juice, which has been disclosed above. The limitations of claims 20-24 have been disclosed above and are obvious for those reasons.

Claim 31 further requires that 90% of the calcium remain solubilized for at least five weeks. As the claimed process has been shown, it is seen that the calcium would have been solubilized for this amount of time. Therefore, it would have been obvious to make a product, which contains solubilized calcium.

The claimed amount of solubilized calcium is disclosed as in Meyer et al. as in claim 32 –35 (abstract). The limitations of claims 36-37 have been disclosed above and are obvious for those reasons.

Claims 29 and 30, 38-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above references as applied to the above claims, and further in view of Chang et al. (7,052,725) and Kaji H (JP 4008767 A).

Claims 29 and 30 are product by process claims requiring particular amounts of the daily value of calcium and weights of calcium. Chang et al. disclose the use of various amounts of calcium in 1 liter of beverage (col. 8, lines 14-50). As it is known how to fortify beverages with calcium, it would have been within the skill of the ordinary worker to fortify with whatever amount was required as shown by Chang et al. Meyer et al. disclose the use of NFC juices containing from 0.05 to .26% calcium (abstract). Also Kaji H discloses making a soft drink containing 3 parts of a calcium salt made from a mixture of calcium citrate, malate and lactate (abstract). The fact that the procedures of the reference are different than that of applicant is not a sufficient reason



Art Unit: 1761

for allowing the product-by-process claims since the patentability of such claims is based upon the product formed and not the method by which it was produced. See *In re Thorpe* 227 USPQ 964. The burden is upon applicant to submit objective evidence to support their position as to the product-by-process claims. See *Ex parte Jungfer* 18 USPQ 2D 1796). Therefore, it would have been obvious to add within the claimed amounts of calcium to beverage products.

Claims 38, 40-47 further require various amounts of calcium, which have been discussed above and are obvious for those reasons.

Claim 39 contains 0.1 % calcium as disclosed by Meyer et al in a NFC juice (abstract).

***Allowable Subject Matter***

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 25-28 are free of the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen F. Pratt whose telephone number is 571-272-1404. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Milton Cano, can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1761

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hp 9-6-06

  
**HELEN PRATT**  
**PRIMARY EXAMINER**